mucous membranes, pain on moving the extremities, hematuria, changes in the cartilages of the long bones of the extremities, swelling along the tibiæ, all of which showed marked improvement under antiscorbutic treatment. The blood picture showed hemoglobin, 40 per cent.; erythrocytes, 800,000; leukocytes, 12,000; polymorphonuclear cells, 40 per cent.; lymphocytes, 60 per cent.; eosinophiles, 1 per cent. There was slight poikilocytosis and polychromatophilia. Large numbers of megaloblasts, normoblasts, and transitional forms were found. Syphilis, tuberculosis, and pseudoleukemia were carefully excluded. In four weeks, under antiscorbutic treatment the blood picture was almost normal, the cartilage changes almost gone and the child fairly recovered. The case of scurvy in the boy, aged seven years, showed pallor, weakness, swollen, bleeding gums, pain on moving the limbs with tenderness on pressure, hematuria, and typical shadows at the cartilages of the long bones shown by x-ray plates. The child had been raised on boiled milk and bread, refusing all vegetables, meat, etc. Under raw milk and antiscorbutic treatment the condition cleared up in six weeks. The cartilage changes had also cleared up and showed no shadows under x-ray examination. Glaser, therefore, claims this a case of typical infantile scurvy in the school age, of which but 6 cases have been reported in literature.

The Pathogenesis and Etiology of Rachitis.—MAX KASSOWITZ (*Deutsch. med. Woch.*, 1913, xxxix, 201), in discussing an article by Ribbert on rachitis, agrees that the origin of the calcium deficiency in rachitic bones is not in calcium metabolism but in pathological changes in the bone-forming tissues and that these changes are set up by irritating substances in the circulation and soft tissues. He disagrees with Ribbert's views that the irritating substances arise from digestive disturbances due to improper milk feeding. Kassowitz's explanation of these substances rest on the following points: All pediatrists agree that well-developed cases of rachitis and marked softening of the bones of the skull, occur in normally nourished, breast-fed children. Again, in the summer time when gastro-intestinal irritations are most numerous and frequent, the curve of rachitis, both as to frequency and severity, sinks to a low point, while during the winter months when there is little gastro-intestinal trouble, the curve rises higher with each month. The nervous disturbances accompanying rickets follow the same rule. In tropical countries rickets is either unknown, or occurs in a few mild cases. These facts not only contradict Ribbert's view, but offer an explanation of the real origin of these substances. In our climate during the months in which rickets is most frequent, children and infants are housed in for weeks at a time. Rickets is primarily a disease of cities and especially frequent among that class who are poorly and unsanitarily housed. The frequency and severity of rickets increase with the number of persons living in the same room. Hansemann shows that children born in the fall and dying in the spring of the year show a large percentage of rickets, while those born in the spring and dying in the fall show few signs of rickets. Tests on the young of animals bear out this fact, notwithstanding the perfect feeding of the captive animals. In support also of the claim of Kassowitz, that the irritating substances are "respiratory poisons," is the fact that one finds a large number of infants born with a rachitic rosary and softened bones of the skull, and that these changes are found much more frequently in children born during the winter and spring than in the summer and fall, and are found much more frequently in infants whose mothers passed the months of their pregnancy in a large city, than in those whose mothers came to the city from the country at the time of confinement. These facts impress the truth that the impurities of the inspired air, especially present in the circumstances above mentioned, pass through the circulation direct to the bones and cause the rachitic changes there, where there is normally at that age a hyperemia. The same impurities in the poorly ventilated air space, entering the pregnant woman's circulation, are carried to the centres of ossification in the fetus and cause the groundwork of the rickets subsequently developing in the child.

The Normal Body Temperature of Children and the Effect of Exercise and Rest.—DORA FRAENKEL (*Deutsch. med. Woch.*, 1913, xxxix, 267) offers the results of an investigation on 163 children to determine the normal temperature per rectum and to find a cause for elevation of temperature so often found in normal, healthy children. Diurnal variations in temperature are frequently found in apparently healthy children, and some authors claim a daily elevation to 37.5; C. or 38° C. to be a significant indication of latent tuberculosis. Elevation in temperature in apparently healthy children has been explained by various authors as being due to adenoiditis, local overheating of the rectum from bacterial action, and nervous excitability in sensitive children. Almost all the children in the Borgsdorf institution showed an after-dinner (noon) temperature of from 37.6° C. to 38.5° C., without any physical symptom of illness to explain it. The children under observation numbered 137, aged between five and one-half and thirteen years, and 26, between fourteen and sixteen years. These children were free from adenoids and enlarged tonsils. Only those children were chosen who showed a morning and evening temperature, taken in bed, of 37.2° C., and over a period of three days. During the experiment the temperature of these children was taken by rectum, while still in bed at 7 A.M. It was again taken at 4.30 P.M. after an hour and a half unrestrained play and romping. It was taken a third time at 8 P.M., one hour after they had been put to bed. The thermometer was inserted 4½ centimeters into the rectum and held there until the mercury stopped rising. All of the 163 children so tested showed an elevation of temperature in the afternoon, 4.30 o'clock. In 42 children the temperature rose to 37.6° C., in 85 children to 38° C., and in 36 children to above 38° C. In the first group, 39 children had a morning and evening temperature of 37.2° C.; 83 of the second group, 37.2° C.; and 35 of the third group, 37.2° C. To determine if the afternoon rise in temperature was due to the physical exertion of the play and romping, every child was put to bed immediately after the 4.30 P.M. record was taken. After one-half to one hour's rest in bed every child showed a temperature of 37.2° C., or below, and the longer the rest the lower the temperature was recorded. The tests were made daily for three weeks, and the